UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/781,647	02/12/2001	George H. Lydecker	3054-028	8365

22440 7590 04/05/2006

GOTTLIEB RACKMAN & REISMAN PC
270 MADISON AVENUE
8TH FLOOR
NEW YORK, NY 100160601

EXAMINER	
LAO, LUN S	

ART UNIT	PAPER NUMBER
2615	

DATE MAILED: 04/05/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/781,647	LYDECKER ET AL.	
	Examiner	Art Unit	
	Lun-See Lao	2615	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *09 January 2006*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *12-30 and 42-53* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *12-30 and 42-53* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date *08-23-2001*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Introduction

1. This is in response to the amendment filed on 01-09-2006. Claims 1-11 and 31-41 have been cancelled. Claims 12-13, 17 and 42 have been amended and claim 53 have been added. Claims 12-30 and 42-53 are pending.

Claim Objections

2. Claim 12 is objected to because of the following informalities: claim 12 recites "predetermimed" on line 8, which appears to be ---predetermined--. Appropriate correction is required.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

4. Claims 12 and 22-23, 53 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hara et al. (US PAT. 5,838,431).

Consider claim 12. Hara teaches that a device for optimal positioning a plurality of pointer with respect to a reference point equidistantly, with respect to a reference point (see fig.4), said device comprising:

a base (fig.4 (12));

an azimuth locating mechanism (16) mounted on said base (12), said azimuth locating mechanism (16) including a first beam generator (16) adapted to generate a beam of light (see col. 5 line 50-col. 6 line 39) ; and

a distance input device (see fig,6 (99)) when a object is at a predetermined distance from said reference point (see col. 8 line 7-55);

said azimuth locating mechanism (see fig. 6 (44,76,59,66)) being rotatable with respect to said base to a plurality of predetermined angles(see col. 8 line 7-55);

wherein at each predetermined angle said beam of light a in cooperation with said distance indicator designates a respective object positions; said object positions being disposed at said predetermined angles and at a predetermined distance from said reference point (see figs 4-6 and col. 8 line 7-col. 9 line 49); but Hara fail to teaches that an indicator and the object being positioned are speakers.

However, Hara does not limit the positioning device in which is limited to position objects; such as, a laser spot on an object or a wall only.

Therefore, it would have been obvious that the positioning device as taught by Hara could have been used to position other objects such as speakers, e.g., by implementing a particular alignment device to arrange an optimal position for a multi-speaker sound system as claimed for the purpose of acquiring the desired audio sound quality for the market demand.

On the other hand, Hara teaches an input distance device and a microcomputer and (office notice is taken) the indicator; such as, a LCD display is well known in the art at time the invention was made.

Therefore, it would have been obvious that the positioning device as taught by Hara could have an indicator; such as, a LCD display for friendly using and the market demand.

Consider claims 22-23, Hara teaches a distance input device (see fig.6, (99 distance input device) and see col. 8 line 7-55), but Hara fails to teach the device of the distance indicator comprises an acoustic device or a radar device. However, it is well known in the art (official notice is taken) that using an acoustic device or a radar device to measure the distance and therefore it would have been obvious that Hara could have the distance indicator comprising an acoustic device or a radar device for market demand.

Consider claim 53. Hara teaches that a device for optimal positioning a plurality of pointer with respect to a reference point equidistantly, with respect to a reference point (see fig.4), said device comprising:

a base (fig.4 (12));

a beam generator (16) adapted to generate a beam of light (see col. 5 line 50-col. 6 line 39) ; and

a distance input device (see fig,6 (99)) adapted to indicate when a respective object is at a predetermined distance from said reference point (see col. 8 line 7-55);

said laser beam generator (16) being rotatable in a horizontal plane with respect to said base to a plurality of predetermined angle (see col. 8 line 7-55);

wherein at each predetermined angle said beam of light a in cooperation with said distance indicator designates a respective object positions; said object positions being

disposed at said predetermined angles and at a predetermined distance from said reference point (see figs 4-6 and col. 8 line 7-col. 9 line 49); but Hara fail to teaches that an indicator and the object being positioned are speakers.

However, Hara does not limit the positioning device in which is limited to position objects such as a laser spot on an object or a wall only.

Therefore, it would have been obvious that the positioning device as taught by Hara could have been used to position other objects such as speakers, e.g., by implementing a particular alignment device to arrange an optimal position for a multi-speaker sound system as claimed for the purpose of acquiring the desired audio sound quality for the market demand.

On the other hand, Hara teaches an input distance device and a microcomputer and (office notice is taken) the indicator; such as, a LCD display is well known in the art at time the invention was made.

Therefore, it would have been obvious that the positioning device as taught by Hara could have an indicator; such as, a LCD display for friendly using and the market demand.

5. Claims 13-16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hara (US PAT.5,838,431) in view of Jorris (US PAT. 3,349,493).

Consider claim 13. Hara does not clearly teach that the device of further comprising a plurality of pointers arranged radially around said reference point, said pointers defining said predetermined positions.

However, Jorris teaches that the device of further comprising a plurality of pointers arranged radially around said reference point, said pointers defining said predetermined positions (see fig. 16 and col. 8 line 70-col. 9 line 11).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teaching of Jorris in to the teaching of Hara to inform the user that the optimal position of the object to easily set up and uses.

Consider claim 14. Jorris teaches the device of fudher comprising a location indicator (see fig.16) adapted to indicate the relative position of said azimuth locating mechanism and said pointers (see figs 15-16 and col.8 line 70-col.9 line 11).

Consider claims 15-16. Jorris teach the device of the base is a disk shaped plate with a top surface and wherein said pointers (see fig. 16) are arranged on said top surface (see figs 15-16 and col.8 line 70-col.9 line 11); and the device of the base is a disk shaped plate (see fig.16) with a side surface and wherein said pointers are arranged on said side surface (see figs 15-16 and col.8 line 70-col.9 line 11).

6. Claims 17-21 and 24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hara (US PAT.5,838,431) in view of Lara (US PAT. 5,343,295).

Consider claim 17, Hara teach that they indicate the optimal position for that object (such as, a laser spot on an object and see figs 4-6 and col. 8 line 7-col. 9 line 49 and discussion on claim 12); but, Wilklun does not explicitly that the optimal position for the speaker is indicated to the user by impinging a second light beam which is generated by a by a second light beam generate and cross each other.

However, Lara explicitly that the optimal position for the object is indicated to the user by impinging a second light beam which is generated by a by a second light beam generator and cross each other (see figs. 2A, 2B and col. 3 lines 19-61 and discussion in the claim 12).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teaching of Lara in to the teaching of Hara to inform the user that the optimal position of the object by impinging of the second light beam to easily set up and ues.

Consider claims 18-19, Hara teaches the device of the beam generators are laser devices (see abstract); and the device of the beam generators are optical devices adapted to generate respective images (see figs 4-6 and col. 8 line 7-col. 9 line 49).

Consider claim 20 Kordana teaches that the device of the azimuth locating mechanism includes an altitude adjustment bracket (see fig.4, 85), said beam generators being mounted on said altitude adjustment bracket, said altitude adjustment bracket being movable to direct beams from said beam generators at speakers (objects) disposed in a plane spaced away from a plane of said base (see figs 4-6 and col. 8 line 7-col. 9 line 49 and see the discussion above claim 12).

Consider claim 21, Hara teaches the device of the beam generators (see fig.4, (16 optical arrangement)) are adapted to generate respective beams which, when impinging on one of an object, are offset in a predetermined direction (see figs 4-6 and col. 8 line 7-col. 9 line 49).

Consider claim 24, Hara teaches the device of further comprising a lock (by switch see fig.6 (98)) adapted to secure said azimuth locating mechanism in one of several predetermined positions with respect to said base (see figs 4-6 and col. 8 line 7-col. 9 line 49).

7. Claims 25-30 are rejected under 35 U.S.C. 103(a) as being unpatentable over Toga (US PAT. 5,218,770).

Consider claim 25, Toga teaches that a method of locating objects of a multi-object system at optimal positions with respect to a reference point, said method comprising (see figs. 10-11):

placing a object locating device at said reference point (see figs. 10-11(b)), said object locating device including a beam generator (s and d) rotatable about an axis passing through said reference point (b) and generating a light beam (s and d); placing a first object (a) along a first axis passing through said reference point (b); directing said light beam at said first object (a) to define a reference line; rotaing said beam generator by a predetermined angle (such as 90 degree) with respect to said reference line (see col.6 line 23-60) to define a second axis; and a placing a second object (c) on said second axis (see figs 10-11 and col.8 line 11-col.9 line 32), but Toga fail to teaches that the object being positioned are speakers.

However, Toga does not limit the positioning device in which is limited to position objects such as rod only.

Therefore, it would have been obvious that the positioning device as taught by Toga could have been used to position other objects such as speakers, e.g., by implementing a particular alignment device to arrange an optimal position for a multi-speaker sound system as claimed for the purpose of acquiring the desired audio sound quality for the market demand.

Consider claim 26, Tago teaches a method of placing a plurality of objects (such as rod) at predetermined angles and a common distance from a reference point, said method comprising (see figs. 10-11):

placing a object locating device (see fig.10, (s)) at said reference point (b), said object locating device including an azimuth locating mechanism including a first beam and second beam generator (see fig.1, 6), said beam generator being rotatable with respect to each other (by 90 degree), said azimuth locating mechanism being rotatable about an axis passing through said reference point (see figs 10-11 (b) and col.4 line 63-col. 4 line 36);

placing a first object (c) in a first position spaced at said common distance from said reference point (b); directing said beam generator (see fig.1,6) at said first object (c) along a reference axis and rotating them with respect to each other to obtain spots on said object having a predetermined spatial relationship, fixing the relative position of wherein beam generators (see fig1, 6) with respect to each other; rotating azimuth locating mechanism to a position defined by a second axis at a predetermined angular offset from said reference axis; placing a second object (a) along said second axis with said spots impinging on said second object (a), and adjusting (by user) the position of

said second object until said spots are approximately in said predetermined spatial relationship (see figs 10-11 and col.8 line 11-col.9 line 32), but Toga fail to teaches that the object being positioned are speakers. Toga does not limit the positioning device in which is limited to position objects such as rod only.

Therefore, it would have been obvious that the positioning device as taught by Toga could have been used to position other objects such as speakers, e.g., by implementing a particular alignment device to arrange an optimal position for a multi-speaker sound system as claimed for the purpose of acquiring the desired audio sound quality for the market demand.

Consider claim 27, Toga teaches the method of the spots are offset along a first line in said predetermined spatial relationship, said first line being transversal to said first and second axes (see figs 10-11 and col.8 line 11-col.9 line 32).

Consider claim 28, Toga teaches the method of the distance between said first speaker (object) and said reference point is determined using a separate distance detector (see figs 1 (6, such as a laser beam) and 10-11 and col.8 line 11-col.9 line 32 and discussion on claim 26).

Consider claim 29 Toga teaches the method of the distance between said first object (e.g., a rod, (c)) and said reference point is (b) determined using said an object (e.g., a rod, (c)) locating device (see figs 10-11 (s) and col.8 line 11-col.9 line 32 and discussion on claim 26).

Consider claim 30, Toga teaches the method of said first and second beam generators (see fig1. (6)) are locked with respect to each other (such as 90 degree) while said azimuth locating mechanism is rotated (see col.4 line 63-col. 5line 36).

8. Claims 42-46 and 49-52 are rejected under 35 U.S.C. 103(a) as being unpatentable over Pratt et al. (US PAT. 5,579,102) in view of Lara et al. (US PAT. 5,343,295).

Consider claim 42, Pratt teaches an aligning device (see fig.1) to place a plurality of objects at an equal distance from a reference point, wherein said aligning device comprises:

a supporting base having a center to be placed at said reference point (see fig.15, (702, center point);

a first beam generator (see fig. 15, (100, transmitter) and abstract) mounted on said supporting base (see fig. 15);

a second beam generator (100) mounted on said supporting base and rotatable (702) with respect to said fist beam generator (100),

a first lock (701, fixer) arranged to secure said first beam generator (100) with respect to the second beam generator (100) while said beam generators are rotating (up and down moving) together with respect to said base, with the relative angle between said beams defining said equal distance (by two different object) (see fig. 15 and col. 6 line 65-col. 7 line 30); and said beam generators generating a first and a second beam (100) respectively: wherein said objects are positioned by rotating (moving up and down) said beam generators (100) with respect to said base to point

said beam generators at predetermined angles and placing one object at one of said angles (see fig. 15 and col. 6 line 65-col. 7 line 30); but Pratt fail to teaches that the object being positioned are speakers and both beams are impinging on said one speaker. Pratt does not limit the positioning device in which is limited to position objects such as rod only.

Therefore, it would have been obvious that the positioning device as taught by Pratt could have been used to position other objects such as speakers, e.g., by implementing a particular alignment device to arrange an optimal position for a multi-speaker sound system as claimed for the purpose of acquiring the desired audio sound quality for the market demand.

On the other hand, Lara teaches that both beams are impinging on said one object (see figs. 2A, 2B and col. 3 lines 19-61 and see discusses above).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teaching of Lara in to the teaching of Hara to inform the user that the optimal position of the object by impinging of the second light beam to easily set up and uses for the market demand.

Consider claims 43-44 Pratt teaches the aligning device of further comprising a first bracket (see fig.15, (701, fixer)) joined to said supporting base at the center of said supporting base; and a second bracket (702) joined to the first bracket (701) to support the second beam generator (100) while allowing said second beam generator (100) to be rotated about the center of the supporting base (see fig. 15 and col. 6 line 65-col. 7 line 30).

Consider claims 45-46, Pratt teaches the aligning device of claim 43 further comprising a first locking mechanism to selectively allow the first bracket (see fig.15, (701)) to move to rotate (up and drown) the first beam (100) generator about the center of the supporting base and to secure the first beam generator (100 and see abstract) from movement (see fig. 15 and col. 6 line 65-col. 7 line 30); and the aligning device of further comprising a second locking mechanism (see fig.15(702)) to selectively allow the second bracket (702) to move to rotate (up and drown) the second beam generator (100) about the center of the supporting base and to secure the second beam generator (100 and see abstract) from movement (see fig. 15 and col. 6 line 65-col. 7 line 30).

Consider claims 49 and 51, Pratt teaches the aligning device of the first and second beam generators (see fig. 15 (100)) are selected from a group of reference pointers consisting of laser devices, radar range detectors, ultrasonic range detectors, and optical projectors (see fig. 15 and abstract and col. 6 line 65-col. 7 line 30); and aligning device of further comprising a pedestal coupled to said supporting base to maintain the center of the supporting base at the reference point (see fig. 15 and col. 6 line 65-col. 7 line 30).

Consider claims 50 and 52, Pratt fails to teach that the speakers to be placed are in a surround sound system and the speaker aligning device of further comprising indicia placed on said supporting base indicating azimuth designations for each speaker.

However, Pratt does indicated a device to position a rod and Pratt does not limit the positioning device in which is limited to position objects such as rod only.

Therefore, it would have been obvious that the positioning device as taught by Pratt could have been used to position other objects such as speakers, e.g., by implementing a particular alignment device to arrange an optimal position for a multi-speaker sound system as claimed for the purpose of acquiring the desired audio sound quality for the market demand.

9. Claims 47-48 are rejected under 35 U.S.C. 103(a) as being unpatentable over Pratt (US PAT. 5,579,102) as modified by Lara (US PAT. 5,343,295) as applied to claim 42 above, and further in view of Cain (US PAT. 6,055,046).

Consider claims 47-48, Pratt teaches the aligning device of further comprising an elevation adjustment mechanism to adjust the first and second beam generators (see fig.15, (100)) such that the first and second reference selectively are moved from a plane containing said supporting base (see fig. 15 and col. 6 line 65-col. 7 line 30); and the aligning device of the first bracket (see fig. 15, (701, fixer)) comprises an altitude adjustment mechanism to selectively adjust the first and second beam generators (see figs. 15, (100)) such that the first and second reference are moved from a reference plane containing the reference point (see fig. 15, (702, center point) and col. 6 line 65-col. 7 line 30), but Pratt does not clearly teach a reference markers.

However, Cain teaches the reference markers (see fig. 5 and col.11 line 54-col.12 line 60)

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teaching of Cain in to the teaching of Pratt and Lara to provide a system and method for aligning a laser transmitter accurately.

Response to Arguments

10. Applicant's arguments with respect to claim12-30 and 42-53 have been considered but are moot in view of the new ground(s) of rejection.

Applicant argued that the cited prior art does not teach "placing a speaker locating device at said reference point, said speaker locating device including an azimuth locating mechanism including a first and a second beam generator, said beam generators being rotatable with respect to each other said azimuth locating mechanism being rotatable about an axis passing through said reference point; placing a first speaker in a first position spaced at said common distance from said reference point; directing said beam generators at said first speaker along a reference axis and rotating them with respect to each other to obtain spots on said speaker having a predetermined spatial relationship; fixing the relative position of wherein beam generators with respect to each other; rotating azimuth locating mechanism to a position defined by a second axis at a predetermined angular offset from said reference axis; placing a second speaker along said second axis with said spots impinging on said second speaker; and adjusting the position of said second speaker until said spots are approximately in said predetermined spatial relationship" as recited in claim 25 (see remark page 11, 3rd

paragraph to page 12 5th paragraph). The examiner disagrees. The limitation as stated above are not recited in claim 25, and thus applicant' argument is moot.

Applicant further argued that Toga (770) shown in Fig. 10, the laser beams L1, 1.2 are generated in such a manner that they do not impinge on the same object at the time (see remark page 13, 6th paragraph). The examiner disagrees. The limitation as stated above is not claimed. Therefore, applicant's argument is moot.

Conclusion

11. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

12. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Tachner (US PAT. 6,560,560) is recited to show other related the speaker alignment tool.

13. Any response to this action should be mailed to:

Mail Stop ____(explanation, e.g., Amendment or After-final, etc.)

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Facsimile responses should be faxed to:
(571) 273-8300

Hand-delivered responses should be brought to:
Customer Service Window
Randolph Building
401 Dulany Street
Alexandria, VA 22314

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Lao,Lun-See whose telephone number is (571) 272-7501 The examiner can normally be reached on Monday-Friday from 8:00 to 5:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Chin Vivian, can be reached on (571) 272-7848.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Technology Center 2600 whose telephone number is (571) 272-2600.

Lao,Lun-See
Patent Examiner
US Patent and Trademark Office
Knox
571-272-7501

VIVIAN CHIN
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2600

Date 02-23-2006

4/03/06